# 在SG350X和SG550X上动态VLAN分配和自动智能端口配置

## 目标

本文档提供有关如何在交换机上配置通用VLAN注册协议(GVRP)设置和自动智能端口的说明。

如果您不熟悉本文档中的某些术语,请查看思科业务:新术语表。

## 简介

通用属性注册协议(GARP)VLAN注册协议或通用VLAN注册协议(GVRP)允许设备动态交换虚拟局域 网(VLAN)配置信息,以便更轻松地配置VLAN。当GVRP全局启用时,手动/静态创建的VLAN将自 动将VLAN ID传播到互联的交换机和接口。动态VLAN分配用于消除在配置VLAN时在处理大型网络 时出错的可能性。当交换机通过GVRP和GVRP注册接收VLAN信息时,接收接口会加入该VLAN。 如果接口尝试加入不存在的VLAN,并且启用了动态VLAN创建,则交换机会自动创建VLAN。

请注意,为了在接入端口上运行,终端设备必须启用GVRP(如果是服务器或PC,则启用GVRP的 NIC)。

Smartport是可应用内置或用户定义的宏的接口。这些宏旨在提供快速配置设备以支持通信需求并利 用各种类型网络设备功能的方法。如果接口连接到IP电话、打印机、路由器和/或接入点(AP),则网 络访问和QoS要求会有所不同。

# 适用设备

- SG350X 系列
- SG550X系列

## 软件版本

• 2.3.5.63

#### 要配置动态VLAN分配和Auto Smartport配置,请遵循以下指南:

拓扑:



注意:2台非活动交换机在结束之前未连接到活动交换机。

配置了GVRP的端口必须配置为卡车模式或常规模式,因为GVRP需要支持标记。当VLAN通过 GVRP从活动交换机传播到非活动交换机时,它将被视为动态VLAN。

**注意:**如果出现错误"vlan not created by user",则只能将静态VLAN(手动创建)添加到配置为接 入端口的端口。GVRP与VTP(服务器 — 客户端)不同。

以下步骤在Web配置页面顶部的"显示模式"字段的"高级"模式下配置。

<b>cisco</b> Language:	English	•	Display Mode:	Advanced <b>v</b>	Logout	SNA	About	Help
								Q

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## <u>在SG550X-24上配置GVRP设置(活动)</u>

要了解有关在交换机上配置GVRP设置的详细信息,请单<u>击此处</u>。

步骤1.登录活动交换机的基于Web的实用程序并导航至VLAN Management > GVRP Settings。

**注意:**在本例中,SG550X-24中的一个将是活动交换机。



Customer Port Multicast TV

步骤2.选中启用复选框以启用GVRP全局状态以在交换机上全局启用GVRP。

G١	GVRP Settings									
6	GVRP Global Status: 🕑 Enable									
	Apply Cancel									
G	GVRP Setting Table Showing 1-28 of 28 All 🔻 per page									
Fi	Filter: Interface Type equals to Port of Unit 1  Go									
	Entry No.	Interface	GVRP State	Dynamic VLAN	GVRP					
				Creation	Registration					

#### 步骤3.单击"**应用**"启用GVRP功能。

	Success. To permanently save the configuration, go to the File Operations page or click the Save icon.										
	GVRP Global Status: 🕑 Enable										
	Apply Cancel										
	GVRP Setting Table Showing 1-28 of 28 All V per page										
	Filter: Interface Type equals to Port of Unit 1 V Go										
		Entry No.	Interface	GVRP State	Dynamic VLAN	GVRP					
I					Creation	Registration					

步骤4.单击要在其上配置GVRP的接口的单选按钮。然后单击**编辑……** 修改选定接口的GVRP设置。

## **注意:**在本例中,我们将配置GE23和GE24。

$\bigcirc$	10 0210	Diodbiod	Endbrod	Enabloa		
	11 GE11	Disabled	Enabled	Enabled		
	12 GE12	Disabled	Enabled	Enabled		
	13 GE13	Disabled	Enabled	Enabled		
	14 GE14	Disabled	Enabled	Enabled		
	15 GE15	Disabled	Enabled	Enabled		
	16 GE16	Disabled	Enabled	Enabled		
	17 GE17	Disabled	Enabled	Enabled		
	18 GE18	Disabled	Enabled	Enabled		
	19 GE19	Disabled	Enabled	Enabled		
	20 GE20	Disabled	Enabled	Enabled		
	21 GE21	Disabled	Enabled	Enabled		
$\bigcirc$	22 GE22	Disabled	Enabled	Enabled		
•	23 GE23	Disabled	Enabled	Enabled		
$\bigcirc$	24 GE24	Disabled	Enabled	Enabled		
	25 XG1	Disabled	Enabled	Enabled		
	26 XG2	Disabled	Enabled	Enabled		
	27 XG3	Disabled	Enabled	Enabled		
	28 XG4	Disabled	Enabled	Enabled		
(	Copy Settings	Edit				

步骤5.出现"编辑GVRP设置"窗口。

https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_jq – 🛛 🗙	
A Not secure https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j	
Interface:       ● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼         GVRP State:       ■ Enable         Dynamic VLAN Creation:       ✔ Enable         GVRP Registration:       ✔ Enable	
Apply Close	
步骤6.(可选)点击适当的单选按钮,然后从端口或链路聚合组(LAG)下拉列表中: 改要更改其设置的接口。LAG将单个以太网链路捆绑到单个逻辑链路中,与单个连 量相比,该逻辑链路可以进一步提高吞吐量。	」 选择新接口,以更 E接可支持的吞吐

https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_jq — 🛛 🗙
A Not secure https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j.
Interface: <ul> <li>Unit 1  <ul> <li>Port GE23  <ul> <li>LAG 1</li> </ul> </li> </ul></li></ul>
GVRP State:     Enable       Dynamic VLAN Creation:     Image: Enable       GVRP Registration:     Image: Enable
Apply Close

https://192.168.1.101/cs41	6592d0/gvrp/bridg_vlan_gvrpparam_e_jq — 🛛 🗙
▲ Not secure https://1	92.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j
Interface:	● Unit 1 ▼ Port GE23 ▼ ○ LAG 1 ▼
GVRP State:	Enable
Dynamic VLAN Creation:	Enable
GVRP Registration:	Enable
Apply Close	

步骤8.选中*动态VLAN创建*字段中的**启用**复选框,以便在选定接口上收到该VLAN的GVRP信息时 ,如果该VLAN不存在,则动态创建VLAN。如果禁用动态VLAN创建,则交换机仅识别已手动创建 的VLAN。

#### **注意**:默认情况下启用该接口。

https://192.168.1.101/cs4f	6592d0/gvrp/bridg_vlan_gvrpparam_e_jq — 🛛 🗙
▲ Not secure https://1	92.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j
Interface:	● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼
GVRP State:	Enable
Dynamic VLAN Creation:	C Enable
GVRP Registration:	Enable
Apply Close	

第9步。(可选)选中*GVRP注册*字段中的**启用**复选框,以在选定接口上收到该VLAN的GVRP信息 时使选定接口加入VLAN。如果GVRP注册被禁用,则接口仅与手动配置为打开的VLAN关联。

https://192.168.1.101/cs4f	6592d0/gvrp/bridg_vlan_gvrpparam_e_jq — 🛛 🗙
A Not secure   https://1	92.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j
Interface:	● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼
GVRP State:	Enable
Dynamic VLAN Creation:	Enable
GVRP Registration:	Enable
Apply Close	

步骤10.单击**Apply**保存选定接口的更新GVRP设置,然后单击**Close**退出*Edit GVRP Setting*窗口。

🗋 https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_jq — 🛛 🛛 🗙								
▲ Not secure https://192.168.1.101/cs4f6592d0/gvrp/bridg_vlan_gvrpparam_e_j								
Interface:       ● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼         GVRP State:       ☑ Enable         Dynamic VLAN Creation:       ☑ Enable         GVRP Registration:       ☑ Enable								
Close								

步骤11.(可选)要将一个接口的GVRP设置复制到多个其他接口,请单击所需接口的单选按钮,然 后单击"复制设**置"**。系统将显示*"复制设*置"窗口。

	20 GE20	Disabled	Enabled	Enabled	
	21 GE21	Disabled	Enabled	Enabled	
	22 GE22	Disabled	Enabled	Enabled	
•	23 GE23	Enabled	Enabled	Enabled	
$\bigcirc$	24 GE24	Disabled	Enabled	Enabled	
	25 XG1	Disabled	Enabled	Enabled	
	26 XG2	Disabled	Enabled	Enabled	
	27 XG3	Disabled	Enabled	Enabled	
	28 XG4	Disabled	Enabled	Enabled	
(	Copy Settings	Edit			

步骤12.(可选)在提供的字段中输入要将所选接口的设置复制到的接口的接口编号或接口名称。然 后单击**应用**保存更改,或单击**关闭**取消更改。

🗋 Copy Settings - Google Chrome	—		×						
A Not secure https://192.168.1.101/cs4f6592d0/config/copydialo									
Conversion from $entry 22$ (OE22)									
Copy conliguration from entry 23 (GE23)									
to: GE24 (Example: 1,3,5-10	or: GE1	,GE3-X(	G4)						
Close									

# <u>在SG550X-24上设置VLAN设置(活动)</u>

步骤1.导航至VLAN Management > VLAN Settings。



步骤2.单击Add... 创建新的VLAN。系统将显示Add VLAN窗口。

**注意:**创建VLAN有两种方法。您可以创建一个VLAN或设置一系列新VLAN。在本例中,我们将创 建一系列VLAN。

VLAN Settings									
VLAN Table									
	VLAN ID	VLAN Name	Originators	VLAN Interface State	Link Status				
					SNMP Traps				
	1		Default	Enabled	Enabled				
$\subset$	Add	Edit	Delete						

- VLAN ID 新VLAN的ID。
- VLAN名称 新VLAN的名称

Add VLAN - Google Chrome     -     -     ×									
A Not secure https://192.168.1.101/cs4f6592d0/vmember/bridg_vlan_properties_a.h									
<ul> <li>VLAN</li> <li>VLAN ID:</li> <li>VLAN Name:</li> </ul>	(Range: 2 - 4094) (0/32 characters used)								
VLAN Interface State: 🕑 Enable Link Status SNMP Traps: 🕑 Enable									
Range     VLAN Range:	-	(Rang	e: 2 - 40	94)					
Apply Close									

步骤4.要创建VLAN范围,请单击Range单选按钮。然后输入以下信息:

• *VLAN范围* — 根据要创建的VLAN数,范围。例如,如果要创建10个VLAN,请输入符合您需求 的范围。在本例中,我们将创建VLAN 10到20。

Add VLAN - Google Chrome     -     -     ×								
A Not secure https://192.168.1.101/cs4	1f6592d0/vmember/bridg_vl	an_prop	oerties_	_a.h				
VLAN								
₩ VLAN ID:	(Range: 2 - 4094)							
VLAN Name:	(0/32 characters used)							
VLAN Interface State: 🖉 Enable								
Link Status SNMP Traps: 🖉 Enable								
Range				ר				
VLAN Range: 10	- 20	(Range	e: 2 - 409	94)				
Apply Close								

步骤5.单击"**应用**"保存配置。

□ Add VLAN - Google Chrome     −     □     ×								
A Not secure https://192.168.1.101/cs4f6592d0/vmember/bridg_vlan_properties_a.h								
VLAN								
₩ VLAN ID:	(Range: 2 - 4094)							
VLAN Name:	(0/32 characters used)							
VLAN Interface State: 🕑 Enable								
Link Status SNMP Traps: 🕑 Enable								
Range								
SVLAN Range: 10	- 20	(Rang	je: 2 - 40	94)				
Close								

<u>如何在SG550X-24上配置接口设置(活动)</u>

步骤1.导航至VLAN Management > Interface Settings。



步骤2.选择全局*Ethertype Tagging方*法。选项有:

- Dot1q-8100 也称为IEEE 802.1Q。它是标记中继上帧的标准,最多支持4096个VLAN。 TPID通常设置为0x8100,以将帧标识为IEEE802.1Q帧。
- Dot1ad-88a8 通过使用名为QinQ的功能实现数据的双重标记标准协议。来自客户端的数据流量在提供商网络中被双标记,其中内部标记是客户标记(C-tag),外部标记是提供商标记(S-tag)。S-VLAN标记或S-tag称为服务标记,用于将数据包转发到提供商网络。S标记可分隔不同客户之间的流量,同时保留客户VLAN标记。QinQ提供服务提供商网络和客户网络之间的隔离。设备是支持基于端口的c标记服务接口的提供商网桥。
- 9100 非标准QinQ Ethertype
- 9200 非标准标记。

注意:在本示例中,我们使用默认Dot1q-8100作为全局Ethertype标记。

I	Interface Settings	
	Global Ethertype Tagging:   Dot1q - 8100  Dot1ad - 88a8  9100  9200	
	Apply Cancel	

步骤3.单击"**应用"**。

Interface Settings						
Global Ethertype Tagging:	<ul> <li>Dot1q - 8100</li> <li>Dot1ad - 88a8</li> <li>9100</li> <li>9200</li> </ul>					
Apply Cancel						

步骤4.单击已配置GVRP的接口的单选按钮。配置了GVRP的端口需要配置为中继端口。

**注意:**在本例中,我们将GE23和GE24配置为中继端口。

$\bigcirc$	20	GE20	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	21	GE21	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
$\bigcirc$	22	GE22	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
0	23	GE23	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
$\circ$	24	GE24	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	25	XG1	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
$\bigcirc$	26	XG2	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	27	XG3	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
$\bigcirc$	28	XG4	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	Copy Settings Edit							

步骤5.单击Edit... 编辑接口。将打开"编辑接口设置"窗口。



第6步。(可选)点击适当的单选按钮,然后从*Port*或LAG下拉列表中选择新接口,以更改要更改其 设置的接口。

iterface:	● Unit 1 ▼ Port GE23 ▼ ○ LAG 1 ▼	
Switchport Mode:	Layer 2     Layer 3	
nterface VLAN Mode:	Access <b>v</b>	
thertype Tagging:	<ul> <li>Use Global Setting (Dot1q)</li> <li>Dot1q - 8100</li> <li>Dot1ad - 88a8</li> <li>9100</li> <li>9200</li> </ul>	
rame Type:	Admit All     Admit Tagged Only     Admit Untagged Only	
ngress Filtering:	Enable	
rimary VLAN:	None T	
econdary VLAN - Host:	Υ.	
vailable Secondary VLA	Ns: Selected Secondary VLANs:	

步骤7.在Switchport Mode字段中选择Layer 2或Layer 3。

**注意:**在本例中,选择了默认(第2层)。



步骤8.在Interface VLAN Mode**下拉**列表*中选择Trunk。*该接口最多是一个VLAN的无标记成员,并且 是零个或多个VLAN的有标记成员。

nterface:	● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼	
Switchport Mode:	Layer 2     Layer 3	
nterface VLAN Mode:	Trunk	
Ethertype Tagging:	<ul> <li>Use Global Setting (Dot1q)</li> <li>Dot1q - 8100</li> <li>Dot1ad - 88a8</li> <li>9100</li> <li>9200</li> </ul>	
Frame Type:	Admit All     Admit Tagged Only     Admit Untagged Only	
ngress Filtering:	Enable	
Primary VLAN:	None V	
Secondary VLAN - Host	Y	
Available Secondary VL	ANs: Selected Secondary VLANs:	

步骤9.为S-VLAN标记选择Ethertype Tagging方法。选项有:

- 使用全局设置(Dot1q)
- Dot1q 8100
- Dot1ad 88a8
- 9100
- 9200

注意:在本例中,我们使用了默认值:使用全局设置(Dot1q)。

🗋 Edit Interface Settings - G	ioogle Chrome	-	×
A Not secure   https://1	192.168.1.101/cs4f6592d0/vmember/bridg_vlan_interfacesettings_e_jq.htm		
Interface:	● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼		٦ î
Switchport Mode:	Layer 2     Layer 3		
Interface VLAN Mode:	Trunk v		
Ethertype Tagging:	Use Global Setting (Dot1q)     Dot1q - 8100     Dot1ad - 88a8     9100     9200		
Frame Type:	Admit All     Admit Tagged Only     Admit Untagged Only		
Ingress Filtering:	✓ Enable		
Primary VLAN:	None *		
Secondary VLAN - Hos	t		
Available Secondary VL	ANs: Selected Secondary VLANs:		

#### 步骤10.然后单击"**应用**"保存更改。

<u></u>	Edit Interface Settings - G	oogle Chrome	-	×
	Not secure   https://1	92.168.1.101/cs4f6592d0/vmember/bridg_vlan_interfacesettings_e_jq.htm		
	ownenport mode.	Layer 3		-
	Interface VLAN Mode:	Trunk 🔻		
	Ethertype Tagging:	<ul> <li>Use Global Setting (Dot1q)</li> <li>Dot1q - 8100</li> <li>Dot1ad - 88a8</li> <li>9100</li> <li>9200</li> </ul>		
	Frame Type:	Admit All     Admit Tagged Only     Admit Untagged Only		
	Ingress Filtering:	Enable		
	Primary VLAN:	None <b>v</b>		
	Secondary VLAN - Host	. <u>и</u>		
	Available Secondary VL	ANs: Selected Secondary VLANs:		
	Legend: I - Isolated C - 0	Community		
C	Apply Close			
-				-

第11步。(可选)如果已在多个接口上配置了GVRP,则可以选择刚配置的接口,然后单击"复**制设** 置……"。这允许您将刚配置的配置复制到其他接口。

	20	GE20	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	21	GE21	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	22	GE22	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
•	23	GE23	Layer 2	Trunk	Dot1q - 8100 (Global)	N/A	N/A	
0	24	GE24	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	25	XG1	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	26	XG2	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	27	XG3	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
	28	XG4	Layer 2	Access	Dot1q - 8100 (Global)	N/A	N/A	
C	Copy Setti	ngs	Edit					

步骤12.(可选)在显示的弹出窗口中,输入要应用相同设置的端口,然后单击"应**用"**。

**注意:**在本例中,仅将GE23的设置复制到GE24。

Copy Settings - Google Chrome –		×									
A Not secure https://192.168.1.101/cs4f6592d0/config/copydialo											
Copy configuration from entry 23 (GE23)											
to: GE24 (Example: 1,3,5-10 or: GE1,G	E3-XG4	4)									
Close											

## <u>如何在活动交换机上设置端口VLAN成员设置</u>

步骤1.导航至VLAN Management > Port VLAN Membership。



步骤2.单击已配置为中继端口的接口的单选按钮。然后单击Join VLAN... 编辑该接口的VLAN成员。

		GE20	Access	1U	10
		GE21	Access	1U	1U
		GE22	Access	1U	1U
C	D	GE23	Trunk	1U, 2-9I, 10-20T, 21-4094I	1U, 10-20T
	)	GE24	Trunk	1U, 2-9I, 10-20T, 21-4094I	1U, 10-20T
		XG1	Access	1U	1U
		XG2	Access	1U	1U
		XG3	Access	1U	1U
		XG4	Access	1U	10
(	Joi	n VLAN	Detail	s	

#### 第3步。(可选)点击适当的单选按钮,然后从*Port*或*LAG*下拉列表中选择新接口,以更改要更改其 设置的接口。

🖞 Edit VLAN Membership	- Google Chrome		-		×						
Not secure   https:/	/192.168.1.101/cs4f6592	0/vmember/porttovlanmembership_e_jq.htm									
Interface:	● Unit 1 ▼ Por	GE23 V 🔘 LAG 1 V			٦						
Current VLAN Mode:	Trunk										
Trunk Mode Membersh	ip (Active)										
These are the VLAN mer	mbership settings for the curr	ent active VLAN interface mode. These settings will take effect immediately.									
		······································									
Native VLAN ID:	1 🔻										
Tagged VLANs:	All VLANs	AII VLANS									
	User Defined	(VLAN Range; Example: 1,3,5-10)									
The following settings are	e for the inactive interface VL	AN modes, these effects will be saved, but will									
not take effect until the in	nterface VLAN mode is chang	ad in the VLAN Interface Settings screen.									
Access Mode Members	hip										
Access VLAN ID:	1 •										
Multicast TV VLAN:	None 🔻										
General Mode Members	ship										
Untagged VLANs:		(VLAN Range; Example: 1,3,5-10)									
Tagged VLANs:		(VLAN Range; Example: 1,3,5-10)									

步骤4.当端口处于中继模式时,它将是此VLAN的成员。在本**征VLAN ID下**拉列*表中选择*本征VLAN ID。

### 注意:在本例中,我们将使用VLAN 1作为本征VLAN ID。

🗋 Edit VLAN Membership - G	oogle Chrome	- 0	×							
A Not secure https://19	2.168.1.101/cs4f6592d0/vmember/porttovlanmembership_e_jq.htm									
Interface:	Unit 1      Port GE23      GE23      LAG 1		<b></b>							
Current VLAN Mode:	Trunk									
Trunk Mode Membership (	Active)									
These are the VLAN membership settings for the current active VLAN interface mode. These settings will take effect immediately.										
Native VLAN ID:										
Tagged VLANs:	All VLANs									
	User Defined (VLAN Range; Example: 1,3,5-10)									
The following settings are fo not take effect until the inter	r the inactive interface VLAN modes, these effects will be saved, but will ace VLAN mode is changed in the VLAN Interface Settings screen.									
Access Mode Membership										
Access VLAN ID:	1 •									
Multicast TV VLAN:	None 🔻									
General Mode Membership										
Untagged VLANs:	(VLAN Range; Example: 1,3,5-10)									
Tagged VLANs:	(VLAN Range; Example: 1,3,5-10)									
Forbidden VLANs:	(VLAN Range; Example: 1,3,5-10)		-							

步骤5.在"标记**VLAN"字**段中选择"用户*定义"单*选按钮。然后输入您希望此端口成为其成员的VLAN ID。

注意:在本例中,我们将使用VLAN:1、10-20(GE23和GE24)。

nterface:	● Unit 1 ▼ Port GE23 ▼ ● LAG 1 ▼								
urrent VLAN Mode:	Trunk								
Trunk Mode Membership (Active)									
These are the VLAN memb	bership settings for the current active VLAN interface mode. These settings will take effect immediately.								
Native VLAN ID:	1 •								
lagged VLANs:	All VLANs								
	User Defined 1, 10-20     (VLAN Range; Example: 1,3,5-10)								
he following settings are f	for the inactive interface VII AN modes these effects will be saved but will								
he following settings are f	for the inactive interface VLAN modes, these effects will be saved, but will efface VLAN mode is chanced in the VLAN Interface Settings screen.								
he following settings are f ot take effect until the inte	for the inactive interface VLAN modes, these effects will be saved, but will prface VLAN mode is changed in the VLAN Interface Settings screen.								
he following settings are f ot take effect until the inte	for the inactive interface VLAN modes, these effects will be saved, but will rface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are following settings are fort take effect until the inte	for the inactive interface VLAN modes, these effects will be saved, but will erface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are for the following settings are for the setting of the	for the inactive interface VLAN modes, these effects will be saved, but will erface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are for the following settings are for take effect until the internet access Mode Membershill Access VLAN ID:	for the inactive interface VLAN modes, these effects will be saved, but will erface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are for take effect until the intent of the set of the	for the inactive interface VLAN modes, these effects will be saved, but will erface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are f hot take effect until the inte Access Mode Membershi Access VLAN ID: Multicast TV VLAN: Seneral Mode Membersh	for the inactive interface VLAN modes, these effects will be saved, but will erface VLAN mode is changed in the VLAN Interface Settings screen.								
The following settings are to tot take effect until the inte Access Mode Membershi Access VLAN ID: Multicast TV VLAN: Seneral Mode Membersh	for the inactive interface VLAN modes, these effects will be saved, but will arface VLAN mode is changed in the VLAN Interface Settings screen. Ip 1 • None •								
he following settings are to to take effect until the inte ccess Mode Membershi ccess VLAN ID: lutiticast TV VLAN: ieneral Mode Membersh	for the inactive interface VLAN modes, these effects will be saved, but will efface VLAN mode is changed in the VLAN Interface Settings screen. Ip I  None  Non								
he following settings are to take effect until the inte ot take effect until the inte Access MOde Membershi Auticast TV VLAN: Seneral Mode Membersh Intagged VLANs:	for the inactive interface VLAN modes, these effects will be saved, but will efface VLAN mode is changed in the VLAN Interface Settings screen. ip 1  V None V None V (VLAN Range; Example: 1,3,5-10)								
The following settings are to not take effect until the inte Access Mode Membershi Access VLAN ID: Wulticast TV VLAN: <b>3eneral Mode Membersh</b> Jnlagged VLANs:	for the inactive interface VLAN modes, these effects will be saved, but will efface VLAN mode is changed in the VLAN Interface Settings screen. Ip I  None  (VLAN Range; Example: 1,3,5-10) (VLAN Range; Example: 1,3,5-10)								
The following settings are to not take effect until the inte Access Mode Membershi Access VLAN ID: Multicast TV VLAN: General Mode Membersh Jntagged VLANs: Tagged VLANs:	for the inactive interface VLAN modes, these effects will be saved, but will strace VLAN mode is changed in the VLAN Interface Settings screen. ip I  None  (VLAN Range; Example: 1,3,5-10) (VLAN Range; Example: 1,3,5-10)								

#### 步骤6.然后单击"**应用**"保存更改。

#### **注意:**如果有更多接口需要配置,请重复步骤2-6。

🖹 Edit VLAN Membership - Goo	gle Chrome —		×							
A Not secure https://192.	168.1.101/cs4f6592d0/vmember/porttovlanmembership_e_jq.htm									
Tagged VLANs:	All VLANs           User Defined         1, 10-20         (VLAN Range; Example: 1,3,5-10)									
The following settings are for the inactive interface VLAN modes, these effects will be saved, but will not take effect until the interface VLAN mode is changed in the VLAN Interface Settings screen.										
Access Mode Membership										
Access VLAN ID:	1 •									
Multicast TV VLAN:	None •									
General Mode Membership										
Untagged VLANs:	(VLAN Range; Example: 1,3,5-10)									
Tagged VLANs:	(VLAN Range; Example: 1,3,5-10)									
Forbidden VLANs:	(VLAN Range; Example: 1,3,5-10)									
General PVID:	1 •									
Customer Mode Membership										
Customer VLAN ID:	None <b>v</b>									
Customer Multicast VLANs:	(VLAN Range; Example: 1,3,5-10)									
Apply Close			Ţ							

#### 步骤7.按顶部的Save按钮,将配置保存到启动配置文件。



步骤1.登录非活动交换机的Web配置页面并导航至VLAN Management > GVRP Settings。将打开 "GVRP设置"页。

**注意:**由于非活动交换机未连接到活动交换机,因此默认IP地址为192.168.1.254。您必须将PC放 入该网络中,才能连接到它。

cisco SG550X-24	4 2	4-1	Port Gi	gabit S	tackable	Manageo	l Switch	cisco Language: <mark>Engli</mark>	ish 🔻	Display Mode:	Advanced •	Logout	SNA Abo	out H	leip <b>Q</b>	
Getting Started A		GVI	RP Setti	ngs											^	
Configuration Wizards	н	GV	RP Global Status: 🔲 Enable													
Status and Statistics		ļ	Apply	Diy Cancel												
Administration		GVI	PD Sotting 1	Setting Table Showing 1-28 of 28 All y per page												
Port Management     Smartport	H.		KF Setting I	-							Showing 1-20	0120 All	• per pa	ge		
VLAN Management		Filte	er: Interface	Type equal	s to Port of Un	it 1 V Go										
VLAN Settings			Entry No.	Interface	GVRP State	Dynamic VLAN Creation	GVRP Registration									
Interface Settings Port to VLAN			1	GE1	Disabled	Enabled	Enabled									
Port VLAN Membership			2	GE2	Disabled	Enabled	Enabled									
<ul> <li>VLAN Translation</li> </ul>			3	GE3	Disabled	Enabled	Enabled									
Private VLAN Settings			4	GE4	Disabled	Enabled	Enabled									
VLAN Groups			5	GE5	Disabled	Enabled	Enabled									
Voice VLAN	Ш		6	GE6	Disabled	Enabled	Enabled									
Access Port Multicast TV V			7	GE7	Disabled	Enabled	Enabled									
<ul> <li>Customer Port Multicast TV</li> </ul>			8	GE8	Disabled	Enabled	Enabled									
Spanning Tree			9	GE9	Disabled	Enabled	Enabled									
MAC Address Tables			10	GE10	Disabled	Enabled	Enabled									
<ul> <li>Multicast</li> <li>IB Configuration</li> </ul>			11	GE11	Disabled	Enabled	Enabled									
P IP Configuration			12	GE12	Disabled	Enabled	Enabled								_	
			13	GE13	Disabled	Enabled	Enabled									
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继续按照与部分相同的方式配置:<u>在SG550X-24(主用)上为两台非交</u>换机配置GVRP设置。仅配 置要连接到活动SG550X-24交换机的端口。在本例中,两个非活动交换机都使用端口24连接到活动 交换机。

## 在SG550X-24非活动交换机上设置接口设置

步骤1.导航至VLAN Management > Interface Settings。将打开"接口设置"页。

**注意:**由于非活动交换机未连接到活动交换机,因此默认IP地址为192.168.1.254。您必须将PC放 入该网络中,才能连接到它。

cisco SG550X-24	24	-Port Gi	gabit S	Stackable M	lanaged	cisc Switch	o Langu	age: Engl	lish	<ul> <li>Display Mode:</li> </ul>	Advanced •	Logout	SNA At	oout Helj
Getting Started	Int	erface Se	ttings											
Configuration Wizards	G	lobal Ethertyp	e Tagging:	Dot1g - 8100										
Search				Dot1ad - 88a8										
Status and Statistics				9100										
<ul> <li>Administration</li> </ul>				9200										
Port Management		Annha	Canaal											
Smartport		Abbia	Cancer	J										
<ul> <li>VLAN Management</li> </ul>	Int	terface Settin	gs Table								Showing 1-28	of 28 All	🔻 per p	age
VLAN Settings	Fil	Iter: Interface	Type equal	s to Port of Unit 1	▼ Go									
Port to VLAN		Entry No.	Interface	Switchport Mode	Interface	Ethortuno Togging	Fromo	Ingroop	Drimon/ \/I AN	Secondon/ V/I Able				
Port VLAN Membership		Enuly NO.	Internace	Switchport Mode	VI AN Mode	Enertype ragging	Type	Filtering	Plinary VLAN	Secondary VLANS				
<ul> <li>VLAN Translation</li> </ul>		1	GE1	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
Private VLAN Settings		2	GE2	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
GVRP Settings		- 3	GE3	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
<ul> <li>Voice VLAN</li> </ul>		4	GE4	Layer 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
Access Port Multicast TV V		5	GE5	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
Customer Port Multicast TV		6	GE6	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
Spanning Tree		7	GE7	Layer 2	Access	Dot1g = 8100 (Global)	N/A	N/A						
MAC Address Tables		8	GE8	Laver 2	Access	Dot1g - 8100 (Global)	N/A	N/A						
<ul> <li>Multicast</li> </ul>		9	GE9	Laver 2	Access	Dotto - 8100 (Global)	N/A	N/A						
<ul> <li>IP Configuration</li> </ul>		10	GE10	Laver 2	Access	Dotto - 8100 (Global)	N/A	N/A						
		10	0210	Luyor L	100000	Borrig Bride (Blobal)								-

继续按照以下方式配置:<u>如何在SG550X-24(活动)上为两台非交</u>换机配置接口设置。仅将连接到 活动交换机的端口配置为中继端口。在本例中,GE24配置为两台交换机的中继。

# <u>确认</u>

在验证GVRP是否正常工作之前,还需要执行几个步骤。按照以下最后几步操作:

步骤1.将电缆从非活动交换机连接到活动交换机。

**注意:**在本例中,我们将将一个非活动SG550X-24(端口24)连接到活动SG550X-24(端口 23)。 步骤2.将电缆从第二个非活动交换机连接到活动交换机。

**注意:**在本例中,我们将将其他非活动SG550X-24(端口24)连接到活动SG550X-24(端口24)。

**注意**:如果在VLAN Management > Create VLAN中未看到GVRP自动创**建的任何VLAN。**您的交换 机可能需要重新启动。

步骤3.在非活**动交换机上导航**到VLAN Management > Create VLAN,查看VLAN 10-20是否已创建

ululu cisco SG550X-24	2	4-Poi	t Gi	gabit Sta	ackable	Managed Sw	<sup>cit</sup>	co Language: English	•	Display Mod	e: Advanced •	Logout	SNA	About	Help Q
Getting Started A		/LAN \$	Settin	ıgs											
Configuration Wizards		VLAN Ta	ble								Showing 1-	12 of 12	50 🔻	per pag	е
Search			AN ID	VLAN Name	Originators	VLAN Interface State	Link Status								
<ul> <li>Status and Statistics</li> </ul>							SNMP Traps								
<ul> <li>Administration</li> </ul>			1		Default	Enabled	Enabled								
<ul> <li>Port Management</li> </ul>			10		GVRP	Enabled	Enabled								
Smartport			11		GVRP	Enabled	Enabled								
▼ VLAN Management			12		GVRP	Enabled	Enabled								
VLAN Settings			13		GVRP	Enabled	Enabled								
Interface Settings			14		GVRP	Enabled	Enabled								
Port to VLAN Port VLAN Membership			15		GVRP	Enabled	Enabled								
<ul> <li>VLAN Translation</li> </ul>			16		GVRP	Enabled	Enabled								
Private VLAN Settings			17		GVRP	Enabled	Enabled								
GVRP Settings	L.		18		GVRP	Enabled	Enabled								
VLAN Groups			19		GVRP	Enabled	Enabled								
<ul> <li>Voice VLAN</li> <li>Access Port Multicast TV V</li> </ul>	L.		20		GVRP	Enabled	Enabled								
<ul> <li>Customer Port Multicast TV</li> </ul>		Add		Edit	Delete										
Spanning Tree	Ľ	Add.		Eun	Delete										
MAC Address Tables															
Multicast															
<ul> <li>IP Configuration</li> </ul>															
•															
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步骤4.导航至**Status and Statistics > View Log > RAM Memory**,并检查GVRP是否已为两台非活动 交换机创建VLAN 10-20。

					cisco Language: English	Display Mode:	Advanced •	Logout	SNA	About	Help
cisco SG550X-24	łż	24-Port G	Sigabit Stackal	ole Mana	ged Switch						Q
Getting Started	Г	2147483587	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 20 was added by GVRP						
Dashboard	Ш	2147483588	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 20						
Configuration Wizards	Ш	2147483589	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 19 was added by GVRP						
Search	L	2147483590	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 19						
<ul> <li>Status and Statistics</li> </ul>	Ш	2147483591	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 18 was added by GVRP						
System Summary	Ш	2147483592	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 18						
CPU Utilization	Ш	2147483593	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 17 was added by GVRP						
Port Utilization	Ш	2147483594	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 17						
Etherlike	Ш	2147483595	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 16 was added by GVRP						
GVRP		2147483596	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 16						
802.1x EAP	Ш	2147483597	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 15 was added by GVRP						
ACL		2147483598	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 15						
Health and Power	1	2147483599	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 14 was added by GVRP						
SPAN & RSPAN	Ш	2147483600	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 14						
Diagnostics	Ш	2147483601	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 13 was added by GVRP						
RMON	Ш	2147483602	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 13						
▶ sFlow	Ш	2147483603	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 12 was added by GVRP						
RAM Memory	Ш	2147483604	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 12						
Flash Memory	Ш	2147483605	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 11 was added by GVRP						
Administration	Ш	2147483606	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 11						
Port Management	Ш	2147483607	2017-Aug-20 06:28:44	Informational	%VLAN-I-GVRPAddVlan: Dynamic VLAN Vlan 10 was added by GVRP						
Smartport	H	2147483608	2017-Aug-20 06:28:44	Informational	%LINK-I-Up: Vlan 10						-
€	4										<b>F</b>
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您现在已成功配置动态VLAN和Auto Smartport配置。

查看以下链接以查看相关视频:

在Cisco RV345上配置通用VLAN注册协议(GVRP)

<u>Smartport配置</u>